

S.N. 10/733,602

1. (Previously Presented) An external rotor motor, comprising:

an inner stator (22) including a lamination stack (23) having a coating (76) at least partially covering it, said inner stator (22) being formed with an internal recess (36);
an external rotor (42);

a bearing support tube (38) having an inner side equipped with a bearing arrangement for journaling said external rotor, and having an outer side (98) to which said inner stator (22) is secured;

an annular securing disk (20) made of a ferromagnetic material and secured in said coating (76) of said lamination stack (23), said disk being formed with projecting portions (34) extending radially inward, with respect to a central axis (101) of said bearing support tube (38) into said internal recess (36) of the inner stator (22), said projecting portions (34) having bent portions (34') which engage as barbs into said outer side (98) of said bearing support tube (38), and thereby prevent axial separation of said stator (22) from said bearing support tube (38);

and wherein said bearing support tube (38) has, on its exterior surface, a plurality of axially extending longitudinal guide grooves (102) into which said projecting portions (34) of said annular securing disk (20) engage, thereby defining and maintaining a predetermined angular orientation between said bearing support tube (38) and said stator (22).

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2. (Previously Presented) The external rotor motor of claim 1, wherein said bearing support tube (38) has a first end, dimensioned narrower than a diameter of said stator internal recess (36) and a second end, dimensioned wider than said stator internal recess (36), and wherein said bent portions (34') of said securing disk are angled diagonally toward said first end of said tube (38), thereby preventing axial movement of said tube (38) out of said stator internal recess (36).

3. (Original) The external rotor motor of claim 1, wherein said annular securing disk (20) is arranged adjacent to said lamination stack (23) of the inner stator (22).

4. (Original) The external rotor motor of claim 1, wherein

an outer surface (98) of said bearing support tube (38) is formed with a stop (100) and, upon mounting of said inner stator (22) onto said tube (22), said stator abuts against said stop (100).

5. (Cancelled)

6. (Original) The external rotor motor of claim 5, wherein at least one of said extending portions (34) has a width which corresponds to a width of an associated one of said guide grooves (102).

7. (Original) The external rotor motor of claim 1, further comprising fan blades (43) formed on an outer periphery of said external rotor (42).

8. (Original) The external rotor motor of claim 1, wherein said external rotor (42) has a diameter not exceeding 60 mm.

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9. (Currently Amended) A fan having, as its drive motor, an external rotor motor comprising:

an inner stator (22) including a lamination stack (23) having a coating (76) at least partially covering it, said inner stator (22) being formed with an internal recess (36);
an external rotor (42);

a bearing support tube (38) having an inner side equipped with a bearing arrangement for rotatably supporting said external rotor (42), and having an outer side (98) to which said inner stator is secured, said outer side (98) bearing a plurality of axially extending grooves (102);

an annular securing disk (20) secured in said coating (76) of said lamination stack (23), said disk being formed with projecting portions (34) extending radially inward, with respect to a central axis (101) of said bearing support tube (38) into said internal recess (36) of the inner stator (22), said portions (34) simultaneously defining an angular orientation of said stator with respect to said tube and serving as barbs (34') extending, in a mounted orientation, both radially inward and away from said bearing arrangement, and engaging into said outer side (98) of said bearing support tube (38) to prevent axial separation of said stator from said tube.